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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/588,827

10/12/2006

Stephan Freudenstein

F-9187

4240

28107 7590 04/09/2010

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EXAMINER

LE, MARK T

ART UNIT

PAPER NUMBER

3617

MAIL DATE

DELIVERY MODE

04/09/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/588,827	Applicant(s) FREUDENSTEIN ET AL.	
	Examiner MARK T. LE	Art Unit 3617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 14, 16-19, 23-25, 27 and 28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 14, 16-19, 23-25, 27 and 28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is responsive to the RCE filed on March 22, 2010.

Applicant's amendments and remarks have been carefully considered.

2. Claims 1-2, 14, 16-18, 23 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over German reference (DE 198 49 266) in view of Japanese reference (JP 4-97064).

The German reference discloses a fixed carriageway having features similar to that recited in the instant claims, including sleepers that have grid supports 4 formed by a plurality of reinforcing transverse and diagonal rods, a concrete carriageway panel that has reinforcements formed by reinforcing longitudinal and transverse rods 8, 9. There is no indication in the German reference that these rods are to be electrically isolated from one another.

The Japanese reference discloses the uses of electrically insulating material 22, insulating spacers or clips 13, and insulating joints 14, in between the re-bars or rods to prevent direct contacts so as to prevent electrical troubles and corrosions (see the English abstract of the Japanese reference).

In view of the Japanese reference, it would have been obvious to one skilled in the art to provide electrically insulating coatings and/or spacers, similar to that taught by the Japanese reference, in the structure of the German reference, such as on the reinforcing rods and in between the rods so as to prevent direct contact, and thus preventing electrical troubles and corrosions.

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Regarding the instant grid support comprised of lower booms including the lower boom that has the coating and is disposed at a different height position from other ones of said lower booms, note that each sleeper as shown in Figure 2 of the German reference has two trellis reinforcing structures 4, and each trellis reinforcing structure 4 has three transverse rods, which all three are readable as lower booms, e.g. lower than the sleeper blocks and lower than the rails, and these three lower booms are arranged at different height positions. Note that the lowest ones of these lower booms that are in contact with the longitudinal rods 8 are to be insulated relative to the longitudinal rods as per the teaching of the Japanese reference, and said lowest ones of the lower booms are at a different height position from other ones of said lower booms, as claimed. On the other hand, applicant should note that the term "disposed at a different height position" is a very broad expression, which would also include very slightly different height positions of said lowest booms that lie on the longitudinal rods; wherein, such as slightly different height positions would be expected as the result of manual or imprecise constructions and installations of the trellis structures. Note that a high precision of the constructions and installations of the reinforcement structures is generally not a critical element in railway constructions.

Regarding the instant claimed insulating coating being provided on only one lower boom of the grid support, as recited in instant claims 14 and 27, it would have been obvious to one skilled in the art to reduce the amount or number of coatings to be used on the rods of the German reference so as to correspondingly reduce costs and the amount of works that have to be done to apply the coatings on the rods, and it

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would have been obvious to one skilled in the art to not using such coatings on certain rods where it is not critical to the objective of preventing electrical troubles, such as at the places where direct contacts between rods are not necessary present.

Regarding the method steps recited in the instant method claims, note that the process of forming the structure of the German reference, as modified, is considered to require the method steps as claimed.

Regarding Applicant's argument that the German reference and the Japanese reference are not in the same art, note that both references disclose structures relating to the same art of concrete constructions with reinforcing bars or rods, and the teaching of insulating reinforcing rods in the concrete structure of the Japanese reference is considered to be relevant because it would be beneficial in the concrete construction of the German reference that also uses reinforcing bars or rods. Such benefits are clearly expressed in the Japanese reference, which include preventing electrical troubles in various appliances and corruptions of the reinforcing rods.

3. Claims 3, 19, 24-25 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 1, 2, 17 or 18 above, and further in view of Padrun (US 4,617,775).

Regarding the instant claimed overlapping regions of the rods being electrically insulated from one another, consider the overlapping reinforcing bars shown in Figure 1 of Padrun that are connected together by plastic clips 13, 14. In view of Padrun, it would have been obvious to one skilled in the art to form the longitudinal rods of the German references by using a plurality of shorter reinforcing bars and connecting them

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in an overlapping manner by plastic clips, in a manner similar to that taught by Padrun, because shorter rods are more widely available and more convenient to be handled.

Regarding the method steps recited in the instant method claims, note that the process of forming the structure of the German reference, as modified, is considered to require the method steps as claimed.

4. Applicant's arguments have been carefully considered, and addressed either directly or indirectly in the above grounds of rejection.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARK T. LE whose telephone number is (571)272-6682. The examiner can normally be reached on Mon-Fri, between 8:15-4:45 (Teleworking).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samuel Morano can be reached on 571-272-6684. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mark Tuan Le
Primary Examiner
Art Unit 3617

/Mark Tuan Le/
Primary Examiner, Art Unit 3617